Out of Hours Stuck song syndrome:

musical obsessions — when to look for OCD

Earworms or musical obsessions (also known as stuck song syndrome [SSS]) are common in the general population, but can be more pronounced and debilitating in patients with obsessive-compulsive disorder (OCD).

Earworms or stuck song syndrome. Recurring tunes that involuntarily pop up and stick in your mind are common: up to 98% of the Western population has experienced these earworms.1 Usually, stuck songs are catchy tunes, popping up spontaneously or triggered by emotions, associations, or by hearing the melody.1 Aetiologically, earworms are related to memory: auditory information functions as a strong mnemonic. Psychologically, earworms are a 'cognitive itch': the brain automatically itches back, resulting in a vicious loop. The more one tries to suppress the songs, the more their impetus increases, a mental process known as ironic process theory.2 Those most at risk for SSS are: females, youth, and patients with OCD.1

Obsessive-compulsive disorder. Patients with OCD (lifetime prevalence >1%) typically suffer from obsessions and compulsions. Earworms are considered intrusions: unwelcome involuntary thoughts, they are a subtype of obsessions. People experiencing earworms as terribly annoying and stressful are more likely to express typical OCD symptoms (such as mysophobia — a fear of germs, dirt, and contamination).1

Differential diagnosis. Stuck songs should be distinguished from auditory hallucinations, where patients are convinced that the origin is external. In 'release hallucinations', the brain compensates for lost auditory input in mentally healthy patients after hearing loss. Rarely, stuck songs are experienced during migraine, unusual forms of complex epilepsy, or palinacousis (continuing to hear a sound after the physical noise has disappeared), 1 usually presenting with comorbid serious neurological signs.1

Vignette. A 40-year-old man with OCD mentions annoying songs during a period of stress. These disruptive songs are present day and night, and cause severe insomnia. The more he tries to suppress them, the worse it gets, and his fear of losing control reinforces this. Short tunes continue for hours, usually songs he hates. The patient

is exhausted and his life is negatively affected by the earworms.

From general to special. Earworms are mostly perceived as neutral or even fun, although 30% of respondents in surveys labelled earworms as disturbing.3 Very few patients will discuss this with their physician, and probably even fewer physicians will actively enquire about it. To distinguish between common physiology and possible pathology, the following clues are helpful.

First, consider the amount of distress experienced by the patient. In patients with OCD, 'just annoying' can become very disruptive, resulting in comorbid sleep disorders and impaired daytime functioning. Second, consider avoidance: this behaviour is typically seen in patients with OCD, who will actively avoid sources of music, such as ringtones and shops. Finally, consider asking about other OCD symptoms like mysophobia and checking urges.1

Treatment - self-help. Treatment aims to improve successful coping, rather than eradicating earworms. Two successful strategies can be distinguished: engagement, for example, singing the song aloud; and distraction, for example, doing sports, listening to different music,3 or even chewing gum. A variety of self-help options can be found on the internet. In general, actively trying to block the songs appears less successful than taking a more passive, accepting approach.3

Clinical treatment. Cognitive behavioural therapy (CBT) is evidence-based and effective for OCD. Patients learn to replace dysfunctional thoughts like 'These uncontrollable songs indicate I'm going crazy!' with new, more accepting thoughts.1

Exposure and response prevention (ERP) is a form of CBT. When the song pops up (exposure) patients learn to inhibit their usual compulsive thoughts and behaviour (response prevention). Despite increased short-duration stress, eventually the songs may cease 1

Mindfulness techniques in CBT are recommended by psychotherapists, although as yet they have not been described in the literature for SSS. Nonjudgemental focus and acceptance form the basis for gradually shifting attention to other voluntary thoughts or emotions.

Unlike CBT, psychotherapy based on

ADDRESS FOR CORRESPONDENCE

Ingrid van Balkom

Lentis Psychiatric Institute, Jonx Department of (Youth) Mental Health and Autism, Laan Corpus den Hoorn 102-2, 9728 JR Groningen, Netherlands.

E-mail: idc.vanbalkom@lentis.nl **@ATNGroningen**

using distraction techniques is not standard for classic OCD symptoms, and may even backfire. Yet, distraction is the most common self-help method for SSS and is often effective. Working together with a therapist also adds an effective social component.1

Medication. Medication is indicated in cases of considerable distress and comorbid OCD symptoms. Response to typical OCD medication such as SSRIs and clomipramine is usually favourable.1

Conclusion. Stuck songs or earworms are very common, but, when accompanied by considerable distress and impaired daily functioning, GPs should consider OCD and possible psychiatric referral. Questioning these patients about avoidant behaviour and OCD symptoms is recommended. As shown, numerous treatment options for SSS in patients with OCD are available.

Anne Margriet Euser,

Clinical Epidemiologist, Jonx, Department of (Youth) Mental Health and Autism of Lentis Psychiatric Institute, Groningen, Netherlands.

Menno Oosterhoff,

Consultant Psychiatrist, Jonx, Department of (Youth) Mental Health and Autism of Lentis Psychiatric Institute, Groningen, Netherlands.

Ingrid van Balkom,

Medical Director, Senior Consultant Psychiatrist, Jonx, Department of (Youth) Mental Health and Autism of Lentis Psychiatric Institute, Groningen, Netherlands.

DOI: 10.3399/bjqp16X683629

REFERENCES

- 1. Taylor S, McKay D, Miguel EC, et al. Musical obsessions: a comprehensive review of neglected clinical phenomena. J Anxiety Disord 2014; 28(6): 580-589.
- 2. Wegner DM. Ironic processes of mental control. *Psychol Rev* 1994; **101(1):** 34–52.
- 3. Williamson VJ, Liikkanen LA, Jakubowski K, Stewart L. Sticky tunes: how do people react to involuntary musical imagery? Plos One 2014;